CLAIMS

1. An interlayer film for laminated glass comprising an adhesive resin, wherein tin-doped indium oxide and/or antimony-doped tin oxide with the average particle diameter of over 0 and not more than 80nm is dispersed in the adhesive resin.

2. An interlayer film for laminated glass as claimed in Claim 1, wherein the number of tin-doped indium oxide or antimony-doped tin oxide particle with a particle diameter of not less than 100nm is not more than 1 per $1\mu m^2$.

3. An interlayer film for laminated glass as claimed in Claim 1 or 2, wherein a laminated glass made by interposing the interlayer film for laminated glass between two clear glass sheets, each of the glass sheets having thickness of 2.5mm, has a visible light transmittance rate (Tv) of not less than 70% in the light rays of 380 to 780nm, a solar radiation transmittance rate (Ts) in the light rays of 300 to 2500nm of not more than 80% of above-mentioned visible light transmittance rate (Tv) and the haze value(H) of not more than 1.0%.

4. An interlayer film for laminated glass as claimed in Claims 1 to 3, wherein an adhesive resin contains a plasticizer.

5. An interlayer film for laminated glass as claimed in Claim 4, wherein 30 to 60 parts by weight of the plasticizer, 0.1 to 3.0 parts by weight of tin-doped indium oxide and/or antimony-doped tin oxide are contained per 100 parts by weight

of the adhesive resin.

6. An interlayer film for laminated glass as claimed in Claims 1 to 5, wherein the adhesive resin is polyvinylacetal resin.

7. An interlayer film for laminated glass as claimed in Claims 1 to 6, which comprises an adhesive resin containing tin-doped indium oxide and/or antimony-doped tin oxide particle and additionally at least one dispersant selected from the group consisting of;

(a) a chelating agent,

(b) a compound with at least one carboxyl group at its terminal position,

and

(c) a modified silicone oil.

8. An interlayer film for laminated glass, which comprises an adhesive resin containing tin-doped indium oxide and/or antimony-doped tin oxide particle and additionally at least one dispersant selected from the group consisting of;

(a) a chelating agent,

(b) a compound with at least one carboxyl group at its terminal position,

and

(c) a modified silicone oil.

9. An interlayer film for laminated glass as claimed in Claim 7 or 8, wherein the chelating agent is a βdiketone compound.

10. An interlayer film for laminated glass as claimed in Claim 9, wherein the βdiketone compound is acetylacetone.

11. An interlayer film for laminated glass as claimed in Claim 7 or 8, wherein the compound with at least one carboxyl group at its terminal position is selected from the group consisting of;

(a) an aliphatic carboxylic acid having 2 to 18 carbon atoms, and

(b) a hydroxy carboxylic acid having 2 to 18 carbon atoms.

12. An interlayer film for laminated glass as claimed in Claim 11, wherein the aliphatic carboxylic acid having 2 to 18 is 2-etylbutyrate or 2-ethylhexanoate.

13. An interlayer film for laminated glass as claimed in Claims 1 to 12, wherein the adhesive resin contains additionally a bond adjusting agent.

14. An interlayer film for laminated glass as claimed in Claim 13, wherein the bond adjusting agent is a magnesium and/or potassium salt of a carboxylic acid having 2 to 10 carbon atoms.

15. An interlayer film for laminated glass as claimed in Claim 14, wherein the amount of the magnesium and/or potassium salt of the carboxylic acid having 2 to 10 carbon atoms is 10 to 150ppm as magnesium and/or potassium content in the obtained interlayer film.

16. An interlayer film for laminated glass as claimed in Claims 3 to 15, which is obtained by dispersing tin-doped indium oxide and/or antimony-doped tin oxide into organic solvent by the use of dispersant to prepare dispersion and, adding said dispersion into the adhesive resin optionally containing a plasticizer.

17. An interlayer film for laminated glass as claimed in Claim 16, wherein the organic solvent is the same with the plasticeizer as is added into the adhesive resin.

18. An interlayer film for laminated glass as claimed in Claim 16 or 17, which is prepared by extruding the dispersion as claimed in Claim 16 or 17 and the adhesive resin by using an extruding machine in which two axes are arranged in parallel.

19. In an interlayer film for laminated glass which is prepared by a method comprising dispersing tin-doped indium oxide and/or antimony-doped tin oxide in a plasticizer to obtain dispersion and adding said dispersion into the adhesive resin, the improvement lies in that the average particle diameter of tin-doped indium oxide and/or antimony-doped tin oxide in said dispersion is 10 to 80nm at room temperature, and still 10 to 80nm after heating dispersion up to 200℃.

20. A laminated glass, which is prepared by interposing an interlayer film for laminated glass as claimed in Claims 1 to 19 between at least a pair of glass sheets to integrate an interlayer film and the laminated glass sheets.

21. A laminated glass as claimed in Claim 20, wherein laminated glass has a visible light transmittance rate (Tv) in the light rays of 380 to 780nm, a solar radiation transmittance rate (Ts) in the light rays of 300 to 2500nm and the haze value (H) as follows;

$$Tv \geqq 65\%$$

$$Ts \leqq 0.8 \times Tv$$

$$H \leqq 1.0\%.$$

22. A laminated glass as claimed in Claim 20 or 21, wherein one of the pair of glasses interposing the interlayer film is a heat-ray absorption glass which has a visible light transmittance rate of not less than 75% in the light rays of 380 to 780nm and transmittance rate of not more than 65% in the whole light rays of 900 to 1300nm.

23. A laminated glass as claimed in Claim 22, wherein the heat-ray absorption glass is a green glass.

24. A laminated glass as claimed in Claims 20 to 23, wherein the efficiency of the electromagnetic wave shield ΔdB in the wavelength of 10 to 2000MHz of the laminated glass is not more than 10dB.

25. A laminated glass as claimed in Claims 20 to 24, wherein the laminated glass has a visible light transmittance rate (Tv) in the light rays of 380 to 780nm, a solar radiation transmittance rate (Ts) in the light rays of 300 to 2500nm, the haze value (H), the efficiency of electromagnetic wave shield(Δ

dB) in the wavelength of 10 to 2000MHz and pummel value(P) as follows;

$Tv \geqq 75\%$

$Ts \leqq 0.8 \times Tv$

$H \leqq 1.0\%$

$\Delta dB \leqq 10dB$

P=a numeral from 3 to 7.